



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/518,620

01/20/2006

David Labonte

WEAT/0640

9031

36735 7590 07/13/2009
PATTERSON & SHERIDAN, L.L.P.
3040 POST OAK BOULEVARD, SUITE 1500
HOUSTON, TX 77056

EXAMINER

OMGBA, ESSAMA

ART UNIT

PAPER NUMBER

3726

MAIL DATE

DELIVERY MODE

07/13/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/518,620	Applicant(s) LABONTE ET AL.	
	Examiner Essama Omgba	Art Unit 3726	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-8 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of Karaev et al. (US Patent 5,088,638) and Current (US Patent 3,489,620).

With regards to claim 1, Applicant, at pages 1-3 of the specification to be known as AAPA, discloses a method of manufacturing a continuous sucker rod coil, the method comprising fusing together a number of raw coils end-to-end to form one continuous sucker rod of a desired length, the ends being fused together by welding which creates heat-affected zones adjacent to the welded area, treating the entire length of the continuous sucker rod to produce a rod of consistent hardness and strength, and coiling the continuous rod. AAPA does not disclose using coils having the same uniform hardness to form the continuous rod and treating only the heat-affected zones. However Current teaches heat-treating individual rod bodies prior to connecting the rod bodies end-to-end (col. 1, lines 21-27 and col. 2, lines 24-27). Further, Karaev et al. teaches using pre-hardened rod bodies having free ends to form a continuous sucker rod by fusing together the pre-hardened rod bodies (col. 3, lines 19-24 and 32-38), the fusing creating fused areas and a heat-affected area at each fused area (col. 4, lines 48-61), and treating each of the heat affected area to alleviate irregularities induced during fusing (col. 5, lines 46-50). Therefore it would have been obvious to one of

Art Unit: 3726

ordinary skill in the art at the time the invention was made, to have substituted the raw coils of AAPA with the pre-hardened rod bodies of Current or Karaev et al., and to have treated only the heat-affected zones as taught by Karaev et al., in order to simplify the manufacturing process of the continuous sucker rod and save on production costs.

Applicant should note that it is inherent that the sucker rods of Current and Karaev et al. will be pre-hardened so as to have the same hardness

Regarding claim 2, see column 2, lines 27-28 of Current.

Regarding claims 3-8, see column 1, lines 49-54 and column 2, lines 58-65 of Current. Applicant should note that shot-peening before or after the fusing is an obvious matter of design choice.

Regarding claim 20, see column 2, line 24-27 of Current.

3. Claims 9-14, 18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA, in view of Current, Karaev et al. and Nast et al. (US Patent 3,210,838).

With regards to claims 9-14, Applicant, at pages 1-3 of the specification to be known as AAPA, discloses a method of manufacturing a continuous sucker rod coil, the method comprising fusing together a number of raw coils end-to-end to form one continuous sucker rod of a desired length, the ends being fused together by welding which creates heat-affected zones adjacent to the welded area, treating the entire length of the continuous sucker rod to produce a rod of consistent hardness and strength, and coiling the continuous rod. AAPA does not disclose using coils having the

Art Unit: 3726

same uniform hardness to form the continuous rod and treating only the heat-affected zones. However Current teaches heat-treating individual rod bodies prior to connecting the rod bodies end-to-end (col. 1, lines 21-27 and col. 2, lines 24-27). Further, Karaev et al. teaches using pre-hardened rod bodies having free ends to form a continuous sucker rod by fusing together the pre-hardened rod bodies (col. 3, lines 19-24 and 32-38), the fusing creating fused areas and a heat-affected area at each fused area (col. 4, lines 48-61), and treating each of the heat affected area to alleviate irregularities induced during fusing (col. 5, lines 46-50). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have substituted the raw coils of AAPA with the pre-hardened rod bodies of Current or Karaev et al., and to have treated only the heat-affected zones as taught by Karaev et al., in order to simplify the manufacturing process of the continuous sucker rod and save on production costs. Although AAPA/Current/Karaev et al. does not disclose inspecting the coil for flaws, however, it is known to inspect wire stock for flaws, removing the detected flaws to create free ends of the wire stock and fusing the free ends to create a continuous wires stock as attested by Nast et al., see column 2, lines 28-46 and 57-72. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have inspected the rolled stock of AAPA/Current/Karaev et al., for flaws, to have removed the detected flaws and to have fused the ends created by the removing of the defects, in light of the teachings of Nast et al., in order to obtain a rolled continuous rolled stock that is essentially free of defects. Applicant should note that marking the areas for flaws or reversing the rod to place the marked flaws at the beginning of the

Art Unit: 3726

fusing step are obvious matter of design choice. Applicant should also note that it is inherent that the rolled stock for sucker rods will be pre-hardened so as to have the same hardness.

Regarding claim 18, see column 1, lines 49-54 and column 2, lines 58-65 of Current.

Regarding claim 21, see column 2, line 24-27 of Current.

4. Claims 15-17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA/Current/Karaev et al./Nast et al. as applied to claim 14 above, and further in view of Payne.

With regards to claims 15-17, AAPA/Current/Karaev et al./Nast et al. discloses a method of manufacturing a continuous sucker rod coil as shown above. Although AAPA/Current/Karaev et al./Nast et al. does not disclose visual and eddy-current flaw detections, however it is known to use visual and eddy-current flaw detections in inspecting sucker rods as attested by Payne, see column 3, lines 3-10. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have used visual and eddy-current inspection in the method of AAPA/Current/Karaev et al./Nast et al., in light of the teachings of Payne, as is known in the art.

Regarding claim 19, see column 1, lines 66-68 and column 2, lines 1-5 of Payne.

Response to Arguments

5. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Essama Omgba whose telephone number is (571) 272-4532. The examiner can normally be reached on M-F 9-6:30, 1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3726

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Essama Omgba/
Primary Examiner, Art Unit 3726

eo
July 10, 2009